



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,209	09/30/2003	Azat Latypov	1857.2100000	9593
26111	7590	02/03/2005	EXAMINER	
STERNE, KESSLER, GOLDSTEIN & FOX PLLC 1100 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			FULLER, RODNEY EVAN	
			ART UNIT	PAPER NUMBER
			2851	

DATE MAILED: 02/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/673,209

Applicant(s)

LATYPOV ET AL.

Examiner

Rodney E Fuller

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

RODNEY FULLER
PRIMARY EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Jain, et al. (US 6,312,134).

Regarding claims 1, 8 and 15, Jain discloses a “means for defining two or more exposure areas (Fig. 3, ref.# 20, 23) within a predetermined region of the surface (Fig. 1, ref.# 5), each area corresponding to selected pixels of the SLM (Fig. 1, ref.# 3); means for forming an overlapping region (Fig. 7, ref.# 44) between the two or more exposure areas (Fig. 7, ref.# 42, 43), the overlapping region being defined by respective overlapping edges (Fig. 3, a, d) of the exposure areas, the overlapping edges corresponding to overlapping pairs of the selected pixels (column 6, lines 32-36) from each area; and means for alternately activating the pixels (column 12, lines 16-18) within each pair such that only one of the pixels within the pair is used to produce the pattern.”

Regarding claims 2 and 9, Jain discloses “wherein the means for alternately activating is configured for turning one pixel on and substantially simultaneously turning the other pixel off.” (column 10, lines 39-40)

Regarding claims 3 and 10, Jain discloses “wherein opposite alternating pairs are distributed throughout the overlapping region such that the alternating pairs form an alternating pattern stitching area.” (Fig. 8, overlap area of scan 1, scan 2)

Regarding claims 4 and 11, Jain discloses “wherein the alternating pairs form a checkerboard pattern.” (Fig. 6, ref.# 34-37)

Regarding claims 5 and 12, Jain discloses “wherein the pattern forms an oscillating stitching line between the overlapping region.” (Fig. 8, overlap area of scan 1, scan 2)

Regarding claims 6 and 13, Jain discloses “wherein the pattern is redistributed within the overlapping region.” (Fig. 8, overlap area of scan 1, scan 2)

Regarding claims 7 and 14, Jain discloses “wherein the redistributing includes spatially averaging stitching disturbances.” (Fig. 9, area corresponding to overlap area shown in Fig. 8 above)

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Markle (US 2002/0171816), Jain (US 2003,0206281), Jain (US 2004/0130561) and Johnson (US 6,498,685) each discloses a maskless lithography system that forms an overlapping region between two or more exposure areas.

Costen, et al. (US 2004,0179270), Wasserman, et al. (US 2004/0239901), Hintersteiner, et al. (US 2004/0239970) and Bleeker, et al (US 2004/0239908) each appear to be related applications with at least one common inventor and/or assignee.

Art Unit: 2851

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney E Fuller whose telephone number is 571-272-2118. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rodney E Fuller
Primary Examiner
Art Unit 2851



January 26, 2005